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ART. II.—*Australian Hydrophilidae*—Notes and New Species,
No. 2.

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This paper has been held up by the author in order to peruse A. d'Orchymont's "Notes sur certains sous-genres d'Ochthebius, &c.," in *Bull. et Ann. de la Soc. Ent. de Belgique*, March, 1932. That author gives a table of five of the subgenera, three with short and two with long legs. These are further subdivided according to pronotal, elytral, and other characters. The arrangement, however, whilst serving admirably for the insects which that classification covers, namely, principally Northern Hemisphere forms, seems to me difficult of application to the forms recorded up to date in this country. For instance, in the key table there appears the following passage: "2. Côtés du pronotum et des élytres non dentés en scie, le premier régulièrement cordiforme. . . ." This is given under the short-legged group, whereas our species having these characters have long legs. It is possible that *O. schizolabrus*, n. sp., may approach sufficiently to *Doryochthebius* to be included therein, but I hesitate at present to refer any species to the other subgenera. Monsieur A. d'Orchymont is, however, to be congratulated in having taken up a matter which greatly needed attention, the more so now with the addition of the newest species, which ably exemplify subgeneric variation of character.

OCHTHEBIUS HIEROGLYPHICUS, n. sp.

(Text-fig. 1.)

Ovate, convex, cupreous-black, nitid, strongly rugose. Head trapeziform, black, lightly convex; two deep parallel longitudinal foveae on basal half, each with a tubercle on outer edge at base. Clypeus faintly excavate at front in centre. Eyes full, set somewhat backward. Pronotum rugose, widest at apex; lateral portions subtriangular, very distinct, set low at junction; crown very convex, narrower anteriorly; median sulcus strong, deep, and rather broad; anterior margin uniformly convex, posterior margin subsinuous. Scutellum invisible. Elytra coarsely rugose; striae adjacent to suture heavily and coarsely punctate, remaining striae obsolete; rugosity taking the form of irregular embossed figures; emarginate laterally, but margins almost concealed from above by convexity of lateral declivity; widest at middle. Legs brown, robust; tarsi dark brown, claws small; posterior tibiae scarcely reaching apex of body. Length, 1.775 mm.; width, 0.86 mm.

Habitat: Allyn River, N.S.W. (J. Hopson; forwarded by H. J. Carter).

Type in coll. Carter.

This strongly sculptured species stands entirely on its own; any similarity of form or proportions which it may possess to other species will be at once apparent from the drawing, except that the steepness of the lateral declivities of the elytra gives a specimen the appearance of being narrower than depicted in the drawing.

OCHTHEBIUS COSTATUS, n. sp.

(Text-fig. 2.)

Ovate, lightly convex, strongly costate, dark golden brown. Head dull black, faintly pubescent in front, finely rugose; clypeus strongly excised in front, otherwise with rounded anterior margin; tubercles prominent, light brown on top; eyes lurid; crown with shallow impressions in front of tubercles, and a

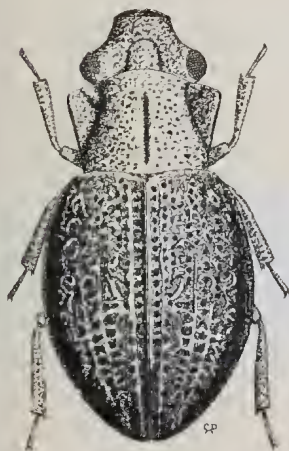


Fig. 1.

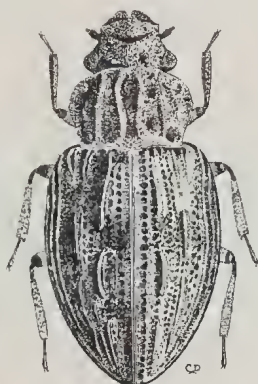


Fig. 2.



Fig. 3.

Ochthebius hieroglyphicus, n. sp. *Ochthebius costatus*, n. sp. *Ochthebius subcostatus*, n. sp.

transverse crescent-shaped fovea on centre. Pronotum rugose, black, with four longitudinal sinuous costae, golden at strong reflections of light; side margins very convex on anterior half, concave on posterior half; anterior margin very faintly sinuous, posterior strongly so; posterior angles strong, anterior ones obsolete. Scutellum invisible. Elytra with strongly interrupted ridges of golden brown, the interruptions alternate, lateral costae more or less continuous. Legs rather short, posterior tibiae not reaching apex of abdomen; claws small. Length, 2.26 mm.; width, 1.07 mm.

Habitat: National Park, Tasmania (R. R. Blackwood).

Type in coll. Deane.

The elytra are more or less punctate-striate, but the rows of punctures are completely upset or distorted by the costal eminences where these occur.

OCHTHEBIUS SUBCOSTATUS, n. sp.

(Text-fig. 3.)

Subelliptic, convex, rugose, costate, grey. Head rather short, broad, rounded in front, dark grey, opaque; tubercles pearly. Eyes widely set, grey. Palpi of average size; terminal segment blunt. Pronotum subscutellate, side portions evenly rounded at sides, not strongly divided from crown; without costae or foveae; side margins concave near base; posterior angles obtuse, anterior obsolete; posterior margin sinuous. Scutellum minute. Elytra subparallel, with costae on most interstices, costae mostly interrupted, but some continuous; a faint suggestion of white pubescence on lateral costae. Legs robust, brown with black at extremities of femora and tibiae; tarsi very dark brown, rather large; posterior tibiae reaching well beyond apex of body. Length, 1.92 mm.; width, 0.9 mm.

Habitat: Blue Mountains, N.S.W. (obtained from leaf debris collected by B. L. C. Stoyles).

Type in coll. Deane.

Mr. Stoyles tells me that he obtained this material near the streams and waterfalls under tree-ferns. This species is smaller than *O. costatus*, n. sp., although the figure is drawn larger. Except for having the elytra costate, the general surface rugose, and the leg colouring somewhat similar, the two species are in no way alike. There is a distinct depression a little forward of the centre across both elytra extending nearly from side to side, and in this appears a sparse pulverulent brown clothing. Two other much fainter depressions occur, one on each elytron, situated at about half way between the main depressions and the apex; these are arranged obliquely, converging posteriorly to the suture, and they also show traces of the brown clothing. The punctate striae are practically obsolete in this species. The elytral costae though very distinct are not so elevated as in *O. costatus*. In certain lights, when the specimen is suitably arranged, a faint suggestion of pronotal costae is apparent, laid out in a somewhat similar way to those of *O. costatus*, but as these are not visible from the ordinary view-point, they have not been shown in the drawing. The apices of elytra are more rounded and less tapering than in *O. costatus*. The grey colouring of pronotum appears as though due to a finely speckled surface.

OCHTHEBIUS LEVIS, n. sp.

(Text-fig 4.)

Ovate, convex, somewhat translucent, lurid, smooth. Head rather short, rounded in front, slightly depressed, dark, with a floury clothing in patches; tubercles not prominent. Eyes black, deeply set. Pronotum transverse, widest at middle, nearly as wide as elytra; with shallow depressions on either side

on crown; medially sulcate; side portions strongly differentiated from crown; side margins diaphanous, biconcave. Elytra punctate-striate, punctures narrow, elongate longitudinally; sub-parallel on anterior half, tapering posteriorly. Wings iridescent, gauzy. Legs medium to short, brown; posterior tibiae not extending to apex of elytra; tarsi rather short, darker brown than femora and tibiae. Length, 1.34 mm.; width, 0.575 mm.

Habitat: Echuca, Vic. (F. E. Wilson; January).

Type in coll. Wilson.

This small species is readily distinguishable from previously described ones by its smoothness, elongate punctures and generally subdiaphanous texture. Unlike *O. lividus*, *O. novicius*,

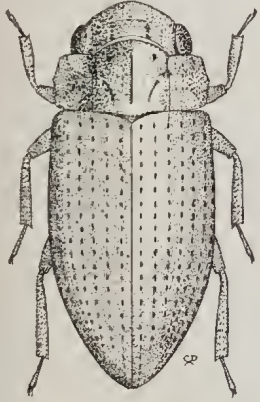


Fig. 4.

Ochthebius levis, n. sp.

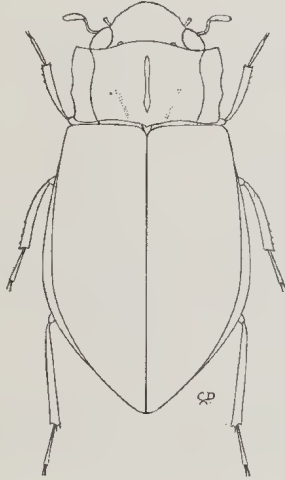


Fig. 5.

Ochthebius lividus, n. sp.

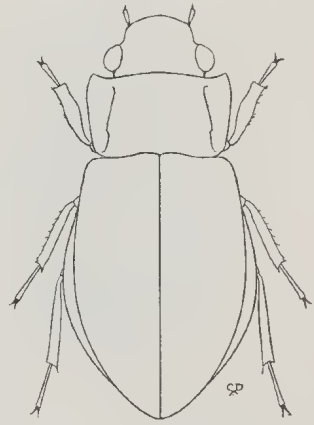


Fig. 6.

Ochthebius flavocinctus, n. sp.

and, in fact, most of the typical *Ochthebius*, it has, with regard to the elytra, a gradual curve or slope from the suture to the side, whereas the other species have a less convexity on top with the sides very steep, almost vertical, and the transverse curvature greatest a little more than half-way from the suture to the lateral margin.

OCHTHEBIUS LIVIDUS, n. sp.

(Text-fig. 5.)

Obovate, convex, punctate, lurid brown, widest across elytra. Head medium, coarsely undulating and depressed on crown, tubercles not prominent; black. Eyes rather large, black. Pronotum irregularly punctate, transverse, cupreous where illuminated; median sulcus constricted in middle, one oblique

fovea on each side near base; side portions rather distinct; anterior and posterior angles well formed, the latter obtuse; side margins sinuous. Scutellum minute. Elytra punctate-striate, punctures round; emarginate, widest at and behind middle, apices tapering. Legs brown, of same colour as elytra; anterior and intermediate tibiae spinose; posterior tibiae extending just beyond apex of body; tarsi rather long. Length, 1.97 mm.; width, 0.98 mm.

Habitat: Echuca, Vic. (F. E. Wilson; January).

Type in coll. Wilson.

OCHTHEBIUS FLAVOCINCTUS, n. sp.

(Text-fig. 6.)

Obovate, convex, brassy, rather coarsely punctate, widest across elytra. Head normal, rounded in front with slight projection at centre; somewhat depressed near base, a little rugose, black, opaque; basal tubercles almost obsolete. Palpi rather narrow, black. Eyes silvery. Pronotum nitid, widest before middle; side portions diaphanous near base, strongly divided from crown by colour but not by elevation; median sulcus shallow, not constricted; other foveae obsolete; punctures very irregular, strongest near centre; margins yellow; tapering near apices. Legs robust, yellow, spinose; posterior tibiae not reaching apex of elytra. Tarsi rather large. Length, 1.97 mm.; width, 0.93 mm.

Habitat: Echuca, Vic. (F. E. Wilson; January).

Type in coll. Wilson.

Differs from the previous species by form narrower, without marked pronotal impressions, and having side portions of pronotum narrowing to base. The colouration is brighter and the margins are flavous.

OCHTHEBIUS NOTALIS, n. sp.

(Text-fig. 7.)

Elliptic, convex, punctate, black. Head subtriangular, narrowly rounded in front, frontal projection almost obsolete. Eyes black, normal in size. Pronotum widest before middle, sides gently curved; median sulcus rather wide, other impressions almost obsolete; anterior angles a little acute, posterior very obtuse; sparsely pubescent, pubescence white; a pergameneous flange on anterior margin. Scutellum almost invisible. Elytra narrow, not much wider than pronotum; punctate-striate, each puncture bearing a small white seta; widest at middle, tapering near apex; faintly emarginate. Legs brown, rather slender; posterior tibiae just attaining apex of body. Tarsi normal, claws small. Length, 1.58 mm.; width, 0.68 mm.

Habitat: Bunbury, W.A. (L. H. Whitlock, per favour of H. J. Carter).

Type in coll. Deane, cotypes in coll. Carter.

A drawing is given of an antenna which was mounted in Canada balsam.

OCHTHEBIUS SCHIZOLABRUS, n. sp.

(Text-fig. 8.)

Oval, lightly convex, olive-black, rugose, punctate-striate. Head subtrapezoidal, labrum large and deeply notched, tips curved upward; bituberculose near base; eyes prominent; palpi brown, rather short, apical segment blunt. Pronotum subcordate

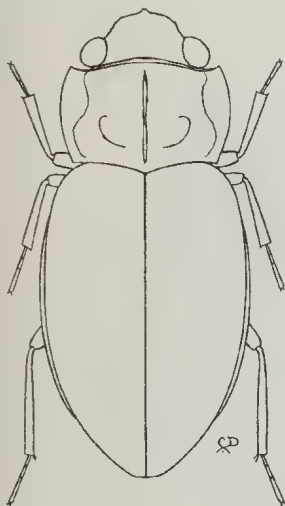


Fig. 7.

Ochthebius notalis, n. sp.



Fig. 7A.

Ochthebius notalis, n. sp.
(antenna).

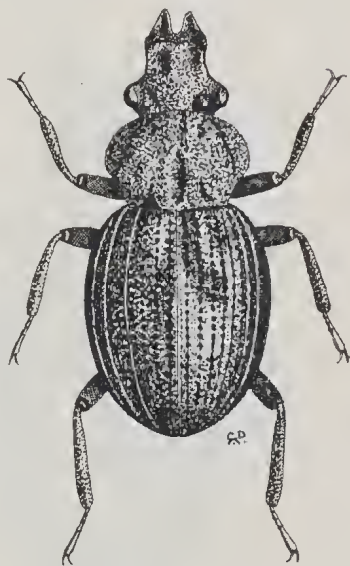


Fig. 8.

Ochthebius schizolabrus, n. sp.

to subquadrate, lightly fossate, finely rugose; widest near middle; front margin and anterior halves of side margins convex; basal angles obtuse, anterior angles obsolete. Scutellum invisible. Elytra oval, strongly punctate-striate, lightly convex, the convexity being broken near centre by shallow depressions. Legs long, posterior femora almost reaching apex of abdomen. Length, 2.28 mm.; width, 0.99 mm.

Habitat: Lorne, Vic. (Deane).

Type in coll. Deane.

The produced and deeply-cleft clypeus easily distinguishes this from any previously described Australian species, and in the type specimen (unique) the clypeal prolongations are unequal, the left being longer than the right. The pronotum has the median depression wide and shallow but distinct on posterior

half; on the anterior portion it is indistinct. Two round scarcely perceptible foveae occur near the front margin, and two triangular depressions at basal margin. The form of the pronotum somewhat resembles that of *O. longipes* Deane, *O. obcordatus* Deane, *O. novicius* Blackb., and *O. subcostatus*, n. sp. The elytra have the 5th, 8th, and 10th interstices adorned with creamy white hairs which bend over to form a continuous line like a rail. This feature it has in common with *O. costatus* and *O. subcostatus*. The legs are very long, equal in proportion to those of *O. longipes*. The irregular broad depressions on the elytra are faintly suggestive of those of *O. costatus*.

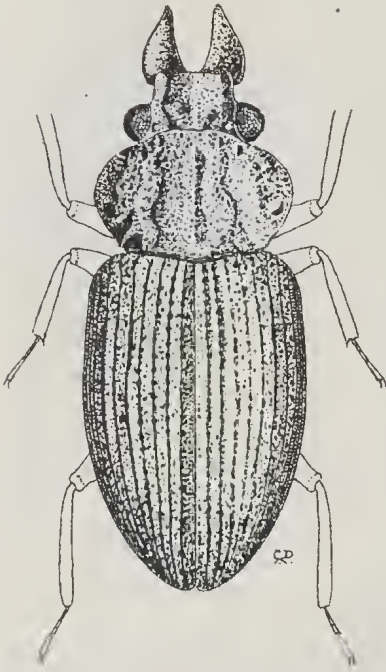


Fig. 9.
Ochthebius labratus, n. sp.

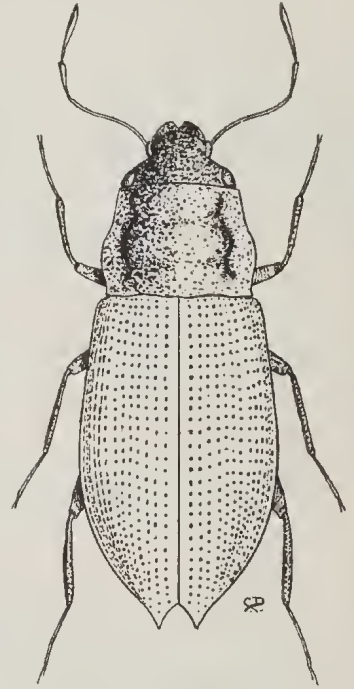


Fig. 10.
Hydraena selecta, n. sp.

OCHTHEBIUS LABRATUS, n. sp.

(Text-fig. 9.)

Ovate, convex, dull black. Head shovel-shaped, front margin rounded, sides turned upward; bituberculose near base, tubercules prominent, light brown. Labrum very large; longer and wider than head, very deeply excavate; upper surface concave, dark brown. Eyes dark brown, opaque, rather large, somewhat elevated. Pronotum rather large, convex, fossate; sides rounded, margins faintly crenulate; anterior margin sinuous, posterior widely obtuse. Elytra striate, striae coarsely but not

deeply punctate on apical half; interstices irregularly elevated; suture somewhat raised near middle. Legs robust, brown; femora and tibiae dark brown on apices; tarsi robust, dark brown, black at apices. Length, 2.42 mm.; width, 1.00 mm.

Habitat: Tambourine, Queensland. (Wassell).

Type in coll. Deane.

I am indebted to Mr. H. J. Carter, of Sydney, for the type of this species. Other examples taken by the same collector have the labrum somewhat smaller, the differences otherwise to be noted not being of sufficient significance to warrant specific separation at present; these are chiefly minute variations in the sculpture of pronotum and elytra. Probably its nearest ally is *O. schizolabrus*, n. sp., from which it differs by having the pronotum much more convex, as well as the departures in shape of labrum and in the general sculpture.

HYDRAENA SELECTA, n. sp.

(Text-fig. 10.)

Elliptic, lightly convex, brown, punctate, rather opaque. Head subtriangular, black, finely punctate. Clypeus rounded in front. Labrum rather large, anterior margin excavate. Eyes black. Palpi with subterminal segment rather narrow. Pronotum quadrate, front narrower than base; widest behind middle; posterior angles well formed; punctate; concolorous with elytra. Elytra lightly convex, striate-punctate; flanges indistinct, apices acute, completely covering abdomen. Legs moderate; tarsi not slender. Length, 2.13 mm.; width, 0.87 mm.

Habitat: Healesville, Victoria. (Deane).

Type in author's coll.

HYDRAENA PLENIPENNIS, n. sp.

Obovate, slightly convex, light brown, punctate, nitid. Head subtriangular, black, finely punctate. Clypeus blunt. Labrum rather large, anterior margin excavate. Eyes silvery. Palpi with subterminal segment rather broad. Pronotum dark brown at centre, light brown at edges; quadrate, front narrower than base; widest just behind middle; posterior angles normal; punctate. Elytra light yellowish brown, striate-punctate; flanges distinct, apices widely rounded, completely covering abdomen. Legs with tarsi medium. Length, 2.12 mm.; width, 0.90 mm.

Habitat: Healesville, Victoria. (Deane).

Type in author's coll.

Differs from *H. luridipennis* Macl., by less general convexity, elytral apices wider, tarsi more slender, pronotum less quadrate and slightly narrower in front, elytral punctures not so fine, tip of abdomen not exposed and form of insect generally wider in proportion.